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Claim Amendments

Claims 1-44 (canceled)

45. (Previously amended) A repeater for a wireless network comprising:
a first transceiver that receives data transmitted on a first channel of a first frequency band during odd time intervals;
a second transceiver coupled to the first transceiver, the second transceiver transmitting data at a data rate of 11Mbps or greater on the first channel of the first frequency band during even time intervals, the second transceiver not transmitting during the odd time intervals; and
a third transceiver coupled to the first and second transceivers, the third transceiver transmitting and receiving data in a second frequency band.
46. (Previously presented) The repeater of claim 45 wherein the first, second and third transceivers each include a transmitter and a receiver.
47. (Previously amended) The repeater of claim 45 wherein the second transceiver receives data on the first channel, and the first transceiver transmits data on the first channel, such that the repeater functions in a bi-directional manner.
48. (Previously presented) The repeater of claim 46 wherein the transmitters and receivers of the first and second transceivers are frequency programmable.
49. (Previously presented) The repeater of claim 46 wherein the transmitters and receivers of the first, second, and third transceivers are frequency programmable.

55. (Previously amended) A wireless local area network (WLAN) comprising:
a plurality of repeaters arranged in a transmission chain, each repeater
having an upstream transceiver coupled to a downstream transceiver, the upstream
and downstream transceivers operating in a first frequency band, the upstream
transceiver of a first repeater in the transmission chain receiving data on a first
channel during even time intervals, and the downstream transceiver of the first
repeater transmitting data at a data rate of 11Mbps or greater on the first channel to
a next repeater in the transmission chain during odd time intervals, the downstream
transceiver not transmitting during the even time intervals, the upstream transceiver
of the next repeater receiving data during the odd time intervals, the downstream
transceiver of the next repeater transmitting data at a data rate of 11Mbps or greater
during the even time intervals, the downstream transceiver of the next repeater not
transmitting data during the odd time intervals, at least one repeater of the plurality
of repeaters including an additional transceiver operating in a second frequency
band;
at least one destination device operable to receive data in the second
frequency band;
a source device that transmits data to the at least one destination device
across the transmission chain of the repeaters.

56. (Previously presented) The WLAN of claim 55 wherein the at least one
destination device comprises a media receiver connected to a display device.

57. (Previously presented) The WLAN of claim 55 wherein the source device
operates in the first frequency band.

58. (Previously amended) The WLAN of claim 55 wherein either the upstream transceiver or the downstream transceiver operates at any given time interval.

59. (Previously presented) The WLAN of claim 55 wherein the source device transmits data in the second frequency band.

60. (Previously presented) The WLAN of claim 56 wherein the transmitters and receivers of the upstream and downstream transceivers are frequency programmable, and further wherein each of the repeaters includes a computing means for programming the frequency channels of the upstream and downstream transceivers.

61. (Previously presented) The WLAN of claim 55 wherein the first frequency band is a 5GHz frequency band and the second frequency band is a 2.4GHz frequency band.

62. (Previously amended) A wireless network comprising:
a source device that transmits data on a first frequency channel;
a plurality of repeaters arranged in a tree topology, each of the repeaters having an upstream transceiver to receive the data, a downstream transmitter to send the data across the wireless network, and an additional transceiver, the upstream and downstream transceivers operating on different frequency channels in a first frequency band, the additional transceiver transmitting and receiving data in a second frequency band, the upstream transceiver of a first repeater in the tree topology receiving data during odd time intervals, and the downstream transceiver of the first repeater transmitting data to a next repeater in the tree topology during even time intervals, the downstream transceiver not transmitting during the odd time

intervals, the upstream transceiver of the next repeater receiving data during the even time intervals, the downstream transceiver of the next repeater transmitting data during the odd time intervals, the downstream transceiver of the next repeater not transmitting data during the even time intervals; and

a destination device that receives the data.

63. (Previously amended) The wireless network of claim 62 wherein two or more of the repeaters receive the data from the source device in the first frequency band.

64. (Previously presented) The wireless network of claim 62 wherein one of the plurality of repeaters re-transmits the data directly to two or more of the repeaters.

65. (Previously presented) The wireless network of claim 62 wherein the source device is coupled to a broadband data network.

66. (Previously amended) The wireless network of claim 62 wherein either the upstream or downstream transceiver operates at any given time interval.

67. (Previously presented) The wireless network of claim 62 wherein the destination device receives the data in the second frequency band from the additional transceiver.

68. (Previously presented) The wireless network of claim 62 wherein the upstream and downstream transceivers each includes a transmitter and a receiver.

69. (Previously amended) The wireless network of claim 62 wherein each of the repeaters operate in a bi-directional manner.

70. (Previously presented) The wireless network of claim 68 wherein the transmitters and receivers of the upstream and downstream transceivers are frequency programmable.

71. (Previously presented) The wireless network of claim 70 wherein each of the repeaters includes a computing means for programming the frequency channels of the upstream and downstream transceivers.

72. (Previously presented) The wireless network of claim 62 wherein the first frequency band is a 5GHz frequency band and the second frequency band is a 2.4GHz frequency band.